```
6 8 18 19 20 21 23 25
ring nodes :
1 2 3 4 5 13 14 15 16 17
chain bonds :
1-8 5-6 13-23 15-25 16-19 17-18 19-20 20-21
ring bonds :
1-2 1-5 2-3 3-4 4-5 13-14 13-17 14-15 15-16 16-17
exact/norm bonds :
1-2 1-5 1-8 2-3 3-4 4-5 5-6 13-14 13-17 13-23 14-15 15-16 15-25 16-17
17-18 19-20 20-21
exact bonds :
16-19
```

G1:H,Cb,Hy,Ak

chain nodes :

G2:H,M

G3:Cb, Hv, Ak

G4:S.SO2

SOURCE:

ANSWER 1 OF 3 CASREACT COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 146:242493 CASREACT <<LOGINID::20080928>>

TITLE: Copper(II) complex with the tetradentate ligand 1,5-bis(4-dithiocarboxylate-1-dodecyl-5-hydroxy-3-

methylpyrazolyl)pentane. Liquid-liquid extraction

study

AUTHOR(S): Oliva, Alfonso; Molinari, Aurora; Avila, Carolina;

Flores, Maria Fernanda Instituto de Ouimica, Pontificia Universidad Catolica

CORPORATE SOURCE: de Valparaiso, Chile

Journal of the Chilean Chemical Society (2006), 51(2),

865-867

CODEN: JCCSCB; ISSN: 0717-9324

PUBLISHER: Journal of the Chilean Chemical Society

DOCUMENT TYPE: Journal LANGUAGE: English

AB The synthesis of the CuDTC (H2DTC = 1,5-bis(4-dithiocarboxylate-1-dodecyl-

5-hydroxy-3-methylpyrazolyl)pentane) and the solvent extraction behavior of Cu(II) from acid solution (pH 0-5) was studied with the new reagent H2DTC as extractant. The reagent acts as a tetradentate ligand and the extracted species is CuDTC.

RX(1) OF 1 A ===> B

YIELD 96%

RCT A 856015-09-3 RX(1)

RGT C 142-71-2 Cu(OAc)2

PRO B 924890-66-4

SOL 67-56-1 MeOH, 67-66-3 CHC13

CON overnight, room temperature COUNT: 23 THERE ARE 2 REFERENCE COUNT: THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 2 OF 3 CASREACT COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 143:78125 CASREACT <<LOGINID::20080928>> TITLE: 1,5-bis(4-dithiocarboxylate-5-hydroxypyrazolyl)pentane derivatives of 5-pyrazolones

AUTHOR(S): Avila, Carolina; Flores, Maria Fernanda; Molinari, Aurora; Oliva, Alfonso

CORPORATE SOURCE: Instituto de Quimica, Pontificia Universidad Catolica

de Valparaiso, Casilla, 4059, Chile

SOURCE: Journal of Heterocyclic Chemistry (2005), 42(4), 595-597

CODEN: JHTCAD; ISSN: 0022-152X

CODEN: JHTCAD; IS: HeteroCorporation

PUBLISHER: HeteroCo DOCUMENT TYPE: Journal

LANGUAGE: English

AB 3-Methyl-1-phenyl-2-pyrazolin-5-one and 1-dodecyl-3-methyl-2-pyrazolin-5one react with carbon disulfide and 1,5-dibromopentane in the presence of sodium acetate in DMF or n-butyllithium in THF to afford

1,5-bis(4-dithiocarboxylate-5-hydroypyrazolyl)pentane derivs.

RX(3) OF 4 2 A + 2 B + C ===> I

I YIELD 71%

RX(3) RCT A 89-25-8, B 75-15-0

STAGE(1)

RGT E 127-09-3 AcONa

SOL 68-12-2 DMF

CON SUBSTAGE(1) 2 hours, 40 deg C SUBSTAGE(2) 2 hours, 40 deg C

STAGE (2)

RCT C 111-24-0

CON overnight, 40 deg C

PRO I 856015-08-2

NTE similar results were obtained using BuLi/THF/OC in place of NaOAc/DMF/40C

RX(4) OF 4 2 G + 2 B + C ===> J

J YIELD 77%

RX(4) RCT G 129803-83-4, B 75-15-0

STAGE(1)

RGT E 127-09-3 AcONa

SOL 68-12-2 DMF

CON SUBSTAGE(1) 2 hours, 40 deg C SUBSTAGE(2) 2 hours, 40 deg C

STAGE (2)

RCT C 111-24-0

CON overnight, 40 deg C

PRO J 856015-09-3

NTE similar results were obtained using BuLi/THF/OC in place of

NaOAc/DMF/40C

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 3 OF 3 CASREACT COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 134:71525 CASREACT <<LOGINID::20080928>>

TITLE: Electrosynthesis of a bis-ketene dithioacetal disulfide derivative from 1-phenyl-3-methyl-4-(butyl

dithiocarboxylate)-5-pyrazolone using a glassy carbon

electrode

AUTHOR(S): Oliva, Alfonso; Molinari, Aurora; Angulo, Jean;

Schrebler, Ricardo; Gomez, Humberto; Cordova, Ricardo

CORPORATE SOURCE: Instituto de Quimica, Universidad Catolica de

Valparaiso, Valparaiso, Chile Synthetic Communications (2000), 30(23), 4353-4360 SOURCE: CODEN: SYNCAV; ISSN: 0039-7911 PUBLISHER: Marcel Dekker, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The electrooxidn. of pyrazolone dithio ester I was studied in ethanol-water solution, using a glassy carbon electrode surface. The electrochem. and spectroscopic data are in agreement with bis-ketene dithioacetal disulfide II as the only product.

RX(1) OF 1 2 A ===> B

RX(1) RCT A 128202-98-2 RGT C 7447-41-8 LiCl PRO B 314281-72-6 SOL 64-17-5 EtOH, 7732-18-5 Water NTE electrochem.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Uploading C:\Program Files\Stnexp\Queries\10594710e.str



```
chain nodes :
6 7 8 9 10 13
ring nodes :
1 2 3 4 5
chain bonds :
1-9 3-10 4-7 5-6 7-13 8-13
ring bonds :
1-2 1-5 2-3 3-4 4-5
exact/norm bonds :
1-2 1-5 1-9 2-3 3-4 3-10 4-5 5-6 7-13 8-13
exact bonds :
4-7
```

G1:H,Cb,Cy,Hy,Ak

G2:Cb,Cy,Hy,Ak

G3:S,SO2

Match level: 1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:CLASS 7:CLASS 8:CLASS 9:CLASS 10:CLASS 13:CLASS 13:CLASS

L10 STRUCTURE UPLOADED

=> d L10 HAS NO ANSWERS L10 STR

- G1 H,Cb,Cy,Hy,Ak
- G2 Cb, Cy, Hy, Ak
- G3 S,SO2

Structure attributes must be viewed using STN Express query preparation.

=> s 110 full

FULL SEARCH INITIATED 19:21:54 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 9869 TO ITERATE

100.0% PROCESSED 9869 ITERATIONS SEARCH TIME: 00.00.01 68 ANSWERS

L11 68 SEA SSS FUL L10

=> d 111 1-10

L11 ANSWER 1 OF 68 REGISTRY COPYRIGHT 2008 ACS on STN

RN 1006311-39-2 REGISTRY

ED Entered STN: 03 Mar 2008

CN 1H-Pyrazole-4-carbodithioic acid, 5-hydroxy-3-methyl-1-(4-methylphenyl)-, propyl ester (CA INDEX NAME)

MF C15 H18 N2 O S2

SR Chemical Library

Supplier: Aurora Fine Chemicals

LC STN Files: CHEMCATS

^{**}PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**

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L11 ANSWER 2 OF 68 REGISTRY COPYRIGHT 2008 ACS on STN
```

RN 866496-21-1 REGISTRY

ED Entered STN: 01 Nov 2005

CN 1H-Pyrazole-3-carboxylic acid, 5-hydroxy-4-[[(4-

methylphenyl)sulfonyl]methyl]-1-phenyl- (CA INDEX NAME)

MF C18 H16 N2 O5 S

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

- L11 ANSWER 3 OF 68 REGISTRY COPYRIGHT 2008 ACS on STN
- RN 866496-20-0 REGISTRY
- ED Entered STN: 01 Nov 2005
- CN 1H-Pyrazole-3-carbonitrile, 5-hydroxy-4-[[(4-methylphenyl)sulfonyl]methyl]-

1-phenyl- (CA INDEX NAME) MF C18 H15 N3 O3 S

SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE) 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

- L11 ANSWER 4 OF 68 REGISTRY COPYRIGHT 2008 ACS on STN
- RN 866496-17-5 REGISTRY
- ED Entered STN: 01 Nov 2005
- CN 1H-Pyrazol-5-ol, 1-phenyl-4-[(phenylsulfonyl)methyl]-3-(trifluoromethyl)-(CA INDEX NAME)
- MF C17 H13 F3 N2 O3 S
- SR CA
- LC STN Files: CA, CAPLUS, TOXCENTER

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

- 1 REFERENCES IN FILE CA (1907 TO DATE)
 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
- L11 ANSWER 5 OF 68 REGISTRY COPYRIGHT 2008 ACS on STN
- RN 866496-16-4 REGISTRY
- ED Entered STN: 01 Nov 2005
- CN 1H-Pyrazol-5-ol, 4-[[(4,5-dihydro-5,5-dimethyl-3-isoxazolyl)thio]methyl]-lphenyl-3-(trifluoromethyl)- (CA INDEX NAME)
- MF C16 H16 F3 N3 O2 S

SR CA LC STN Files: CA, CAPLUS, TOXCENTER

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 6 OF 68 REGISTRY COPYRIGHT 2008 ACS on STN

RN 866496-15-3 REGISTRY

ED Entered STN: 01 Nov 2005

CN 1H-Pyrazol-5-ol, 1-methyl-4-[[(4-methylphenyl)sulfonyl]methyl]-3-

(trifluoromethyl) - (CA INDEX NAME)

MF C13 H13 F3 N2 O3 S

SR

CA

LC STN Files: CA, CAPLUS, TOXCENTER

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)

2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 7 OF 68 REGISTRY COPYRIGHT 2008 ACS on STN

866496-14-2 REGISTRY RN

ED Entered STN: 01 Nov 2005

CN 1H-Pvrazol-5-ol, 1-methvl-4-[(phenvlthio)methvl]-3-(trifluoromethvl)- (CA INDEX NAME)

C12 H11 F3 N2 O S

MF SR CA

LC STN Files: CA, CAPLUS, TOXCENTER

$$\begin{tabular}{lllll} Me & & & & \\ N & & & & \\ N & & & & \\ OH & & & & \\ F_3C & & CH_2-SPh \\ & & & & \\ \end{tabular}$$

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 8 OF 68 REGISTRY COPYRIGHT 2008 ACS on STN

866496-13-1 REGISTRY RN

Entered STN: 01 Nov 2005 ED

CN 1H-Pyrazol-5-ol, 1-methyl-4-[(methylthio)methyl]-3-(trifluoromethyl)- (CA

INDEX NAME)

MF C7 H9 F3 N2 O S SR CA

LC. STN Files: CA, CAPLUS, TOXCENTER

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE) 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 9 OF 68 REGISTRY COPYRIGHT 2008 ACS on STN

RN 856015-09-3 REGISTRY

- ED Entered STN: 19 Jul 2005
- CN 1H-Pyrazole-4-carbodithioic acid, 1-dodecy1-5-hydroxy-3-methy1-, S,S'-1,5-pentanedivl ester (CA INDEX NAME)
- 1H-Pyrazole-4-carbodithioic acid, 1-dodecyl-5-hydroxy-3-methyl-, CN
- OTHER CA INDEX NAMES: 1,5-pentanediyl ester (9CI)
- MF C39 H68 N4 O2 S4
- SR CA LC STN Files: CA, CAPLUS, CASREACT

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE) 2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L11 ANSWER 10 OF 68 REGISTRY COPYRIGHT 2008 ACS on STN

- RN 856015-08-2 REGISTRY
- ED Entered STN: 19 Jul 2005
- CN 1H-Pyrazole-4-carbodithioic acid, 5-hydroxy-3-methyl-1-phenyl-,
- 1,5-pentanediyl ester (9CI) (CA INDEX NAME)
- MF C27 H28 N4 O2 S4
- SR CA
- LĊ STN Files: CA, CAPLUS, CASREACT

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE) 1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> S L12

2 L12

L13 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1200395 CAPLUS <<LOGINID::20080928>>

DOCUMENT NUMBER: 143:460143

TITLE: Process for the preparation of 5-difluoromethoxy-4-

thiomethylpyrazoles via fluoroalkylation INVENTOR(S):

Uchida, Yukio

PATENT ASSIGNEE(S): Ihara Chemical Industry Co., Ltd., Japan

SOURCE: PCT Int. Appl., 27 pp.

CODEN: PIXXD2 DOCUMENT TYPE: Pat.ent.

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

F	PATENT NO.						KIND DATE			APPLICATION NO.							DATE			
7		2005105755				A1 2005111				WO 2	005-	JP78	20050425							
	W: AE, AG, AL,		AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,				
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,			
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KE,	KG,	KM,	KP,	KR,	KZ,			
		LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,			
		NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,			
		SM,	SY,	TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,			
		ZM,	ZW																	
	RW:	BW,	GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,			
		AZ,	BY,	KG,	KZ,	MD,	RU,	TJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,			
		EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,	IS,	IT,	LT,	LU,	MC,	NL,	PL,	PT,			
		RO.	SE,	SI,	SK,	TR,	BF,	BJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,			
		MR,	NE,	SN,	TD,	TG														
Ċ	JP 2007246396					A 20070927				JP 2	004-	1327	64	20040428						
PRIORI	PRIORITY APPLN. INFO.:									JP 2	004-	1327	A 20040428							
OTHER	OTHER SOURCE(S):						MARPAT 143:460143													

$$\begin{bmatrix} o \\ \end{bmatrix}_n$$

$$S \longrightarrow R3$$

$$N \longrightarrow OR4$$

$$R1$$

Ι

OTE GI

AB A process for the preparation of compound I [R1 = alkyl, (un)substituted aromatic

hydrocarbon, (un) substituted heterocycle; R2 = electron withdrawing group; R3 = alkyl, (un)substituted aromatic hydrocarbon, (un)substituted heterocycle; R4 = CHF2; n = 0, 2], characterized by reaction of compds. I [R1, R2, R3, n = same as above; R4 = H] with F2CHX [X = halo] in the presence of sodium hydroxide in dialkyl ketone or alkyl nitrile, was provided. For example, a solution of 3-[(5-hydroxy-1-phenyl-3trifluoromethylpyrazol-4-yl)methylthio]-4,5-dihydro-5,5-dimethylisoxazole (33.2 g) and NaOH (12.0 g) in acetonitrile (100 mL) was stirred at room temperature for 1 h. To the resulting mixture was added chlorodifluoromethane (17.3 g) over a period of 4 h, while maintaining the reaction temperature between 5-15 °C. The reaction was stirred for 5 h, followed by work-up and silica-gel purification to afford 3-[(5-difluoromethoxy-1-methyl-3trifluoromethylpyrazol-4-yl)methylthio]-4,5-dihydro-5,5-dimethylisoxazole (22.6 q).

866496-20-0P RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(thiomethylation of pyrazole compds. using formaldehyde)

RN 866496-20-0 CAPLUS

CN 1H-Pyrazole-3-carbonitrile, 5-hydroxy-4-[[(4-methylphenyl)sulfonyl]methyl]-1-phenyl- (CA INDEX NAME)

REFERENCE COUNT: THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1103753 CAPLUS <<LOGINID::20080928>>

DOCUMENT NUMBER: 143:387027

TITLE: Process for preparation of 5-hydroxy-4-

thiomethylpyrazole derivatives

Uchida, Yukio INVENTOR(S):

PATENT ASSIGNEE(S): Ihara Chemical Industry Co., Ltd., Japan

SOURCE: PCT Int. Appl., 50 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PI	PATENT NO.					D	DATE			APPL	ICAT	DATE					
				-													
WC	WO 2005095352						2005	1013		WO 2	005-	20050331					
	W:	ΑE,	AG,	AL,	AM,	AT,	AU,	AZ,	BA,	BB,	BG,	BR,	BW,	BY,	BZ,	CA,	CH,
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	EG,	ES,	FI,	GB,	GD,
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	KE,	KG,	KP,	KR,	KZ,	LC,	LK,
		LR.	LS.	LT.	LU.	LV.	MA.	MD.	MG.	MK.	MN.	MW.	MX.	MZ.	NA.	NI.	NO.

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NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY,
         TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
             RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
             MR, NE, SN, TD, TG
     JP 2005289824
                          Α
                                 20051020
                                              JP 2004-102963
                                                                      20040331
                                             AU 2005-228017
    AU 2005228017
                           A1
                                 20051013
                                                                     20050331
     CA 2560936
                          A1
                                 20051013
                                              CA 2005-2560936
                                                                      20050331
     CN 1938278
                           Α
                                 20070328
                                              CN 2005-80010635
                                                                      20050331
     EP 1767528
                          A1
                                 20070328
                                              EP 2005-728918
           AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, HR
     BR 2005009353
                          Α
                                20070911
                                             BR 2005-9353
                                                                     20050331
     KR 2007003964
                           Α
                                 20070105
                                              KR 2006-719480
                                                                      20060921
     IN 2006DN05581
                                 20070831
                                              IN 2006-DN5581
                                                                     20060925
                           Α
                                              MX 2006-PA11130
     MX 2006PA11130
                          Α
                                 20070125
                                                                      20060928
                          A1
     US 20070185334
                                20070809
                                             US 2006-594710
                                                                      20060928
PRIORITY APPLN. INFO.:
                                              JP 2004-102963
                                                                   A 20040331
                                                                W 20050331
                                              WO 2005-JP6806
OTHER SOURCE(S):
                       MARPAT 143:387027
GI
```

- AB This invention pertains to a method for producing pyrazole derivs. I [wherein Rl = H, alkyl, (un)substituted hydrocarbyl, or heterocyclyl; R2 = electron withdrawing group; R3 = alkyl, (un)substituted hydrocarbyl, or heterocyclyl; n = 0 or 2]. For example, 5-hydroxy-1-methyl-3-(trifluoromethyl)pyrazole (preparation given) was reacted with 35% formalin in H2O in the presence of NaOH, followed by the addition of NaSMe to give II (72.7%). This process enables the 5-hydroxy-4-thiomethylpyrazole compds. to be easily produced in high yield under mild conditions through a single step without the necessity of using any special apparatus, expensive catalyst, transition metal, etc. It is friendly to the environment because it generates substantially no harmful wastes derived from a catalyst, etc. II 866496-20-0P
- RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
- (preparation of 5-hydroxy-4-thiomethylpyrazole derivs.) RN 866496-20-0 CAPLUS
- CN 1H-Pyrazole-3-carbonitrile, 5-hydroxy-4-[[(4-methylphenyl)sulfonyl]methyl]1-phenyl- (CA INDEX NAME)

M

chain nodes:
6 7 8
ring nodes:
1 2 3 4 5
chain bonds:
1-7 3-8 5-6
ring bonds:
1-2 1-5 2-3 3-4 4-5
exact/norm bonds:
1-2 1-5 1-7 2-3 3-4 3-8 4-5 5-6

G1:H,Cb,Cy,Hy,Ak

G2:Cb,Cy,Hy,Ak

G3:S,SO2

Match level :

L16 STRUCTURE UPLOADED

=> d L16 HAS NO ANSWERS L16 STR



G1 H, Cb, Cy, Hy, Ak

G2 Cb,Cy,Hy,Ak

G3 S.SO2

Structure attributes must be viewed using STN Express query preparation.

=> s 116 full

FULL SEARCH INITIATED 19:26:23 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 270331 TO ITERATE

100.0% PROCESSED 270331 ITERATIONS

10523 ANSWERS

SEARCH TIME: 00.00.03

10523 SEA SSS FUL L16

=> s 118 and formaldehyde? 158420 FORMALDEHYDE?

L19 2 L18 AND FORMALDEHYDE?

=> d 119 1-2 ibib abs hitstr

L19 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1200395 CAPLUS <<LOGINID::20080928>>

DOCUMENT NUMBER: 143:460143

TITLE: Process for the preparation of 5-difluoromethoxy-4-

thiomethylpyrazoles via fluoroalkylation

INVENTOR(S): Uchida, Yukio

PATENT ASSIGNEE(S): Ihara Chemical Industry Co., Ltd., Japan

SOURCE: PCT Int. Appl., 27 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Japanese FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.						KIND DATE				APPL	ICAT:	ION I	DATE					
WO	WO 2005105755				A1 200			20051110			005-	JP78	20050425					
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		LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NA,	
		NI,	NO,	NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	
		SM,	SY,	TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VC,	VN,	YU,	ZA,	
		ZM,	ZW															
	RW:	BW,	GH,	GM,	KE,	LS,	MW,	MZ,	NA,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,	
		AZ,	BY,	KG,	KZ,	MD,	RU,	ΤJ,	TM,	AT,	BE,	BG,	CH,	CY,	CZ,	DE,	DK,	
		EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	IS,	IT,	LT,	LU,	MC,	NL,	PL,	PT,	
		RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,	
		MR,	ΝE,	SN,	TD,	TG												
JP	JP 2007246396						2007	0927		JP 2	004-	1327	64	20040428				
PRIORITY	PRIORITY APPLN. INFO.:									JP 2	004-	1327	64	A 20040428				
OTHER SOURCE(S):					MARPAT 143:460143													

$$\begin{bmatrix} o \\ | \\ S \end{bmatrix}_n$$

$$R^2$$

$$N$$

$$OR^4$$

$$R1$$

AB A process for the preparation of compound I [Rl = alkyl, (un)substituted aromatic

hydrocarbon, (un)substituted heterocycle; R2 = electron withdrawing group; R3 = alkyl, (un)substituted aromatic hydrocarbon, (un)substituted heterocycle; R4 = CHF2; n = 0, 2], characterized by reaction of compds. I [R1, R2, R3, n = same as above; R4 = H] with FZCHX [X = halo] in the presence of sodium hydroxide in dialkyl ketone or alkyl nitrile, was provided. For example, a solution of 3-[(5-hydroxy-1-phenyl-3-trifluoromethylpyrazol-4-yl]methylthiol-4,5-dihydro-5,5-dimethylisoxazole (33.2 g) and NaOH (12.0 g) in acetonitrile (100 mL) was stirred at room temperature for 1 h. To the resulting mixture was added chlorodifluoromethane (17.3 g) over a period of 4 h, while maintaining the reaction temperature between 5-15 °C. The reaction was stirred for 5 h, followed by work-up and silica-gel purification to afford 3-[(5-difluoromethoxy-1-methyl-3-trifluoromethylpyrazol-4-yl)methylthio]-4,5-dihydro-5,5-dimethylisoxazole (22.6 g).

IT 63650-60-2, 3-Cyano-5-hydroxy-1-phenylpyrazole 122431-37-2
, 5-Hydroxy-1-methyl-3-trifluoromethylpyrazole
RL: RCT (Reactant); RRCT (Reactant or reagent)

(thiomethylation of pyrazole compds. using formaldehyde)

- RN 63650-60-2 CAPLUS
- CN 1H-Pyrazole-3-carbonitrile, 5-hydroxy-1-phenyl- (CA INDEX NAME)

- RN 122431-37-2 CAPLUS
- CN 1H-Pyrazol-5-ol, 1-methyl-3-(trifluoromethyl)- (CA INDEX NAME)

- IT 447402-29-1P 866496-13-1P 866496-15-3P 866496-20-0P
 - RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 - (thiomethylation of pyrazole compds. using formaldehyde)
- RN 447402-29-1 CAPLUS
- CN 1H-Pyrazol-5-ol, 4-[[(4,5-dihydro-5,5-dimethyl-3-isoxazolyl)thio]methyl]-1-methyl-3-(trifluoromethyl)- (CA INDEX NAME)

- RN 866496-13-1 CAPLUS
- CN 1H-Pyrazol-5-ol, 1-methyl-4-[(methylthio)methyl]-3-(trifluoromethyl)- (CA INDEX NAME)

RN 866496-15-3 CAPLUS
CN 1H-Pyrazol-5-ol, 1-methyl-4-[[(4-methylphenyl)sulfonyl]methyl]-3(trifluoromethyl)- (CA INDEX NAME)

RN 866496-20-0 CAPLUS
CN 1H-Pyrazole-3-carbonitrile, 5-hydroxy-4-[[(4-methylphenyl)sulfonyl]methyl]1-phenyl- (CA INDEX NAME)

L19 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:1103753 CAPLUS <<LOGINID::20080928>>

DOCUMENT NUMBER: 143:387027

TITLE: Process for preparation of 5-hydroxy-4-

thiomethylpyrazole derivatives

INVENTOR(S): Uchida, Yukio

PATENT ASSIGNEE(S): Ihara Chemical Industry Co., Ltd., Japan

SOURCE: PCT Int. Appl., 50 pp. CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: PATENT INFORMATION:

	TENT										DATE								
									WO 2005-JP6806										
W: AE, AG, AL,				AM,	AT,	AU,	ΑZ,	BA,	BB,	, BG,	BR,	BW,	BY,	BZ,	CA,	CH,			
		CN,	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	, EC,	EE,	EG,	ES,	FI,	GB,	GD,		
		GE,	GH,	GM,	HR,	HU,	ID,	IL,	IN,	IS,	, KE,	KG,	KP,	KR,	KZ,	LC,	LK,		
		LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	, MN,	MW,	MX,	MZ,	NA,	NI,	NO,		
		NZ,	OM,	PG,	PH,	PL,	PT,	RO,	RU,	SC,	, SD,	SE,	SG,	SK,	SL,	SM,	SY,		
		TJ,	TM,	TN,	TR,	TT,	TZ,	UA,	UG,	US,	, UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW		
	RW:	BW,	GH,	GM,	ΚE,	LS,	MW,	ΜZ,	NA,	SD,	, SL,	SZ,	TZ,	UG,	ZM,	ZW,	AM,		
		AZ,	BY,	KG,	KZ,	MD,	RU,	TJ,	TM,	AT,	, BE,	BG,	CH,	CY,	CZ,	DE,	DK,		
		EE,	ES,	FI,	FR,	GB,	GR,	HU,	IE,	IS,	, IT,	LT,	LU,	MC,	NL,	PL,	PT,		
		RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	, CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,		
		MR,	NE,	SN,	TD,	TG													
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EP	EP 1767528					A1 20070328					2005-	7289	18						
	R:										, ES,								
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BR	2005	0093	A		2007	0911		BR 2	2005-	9353	20050331								
KR	2007	0039	64		A		2007	0105		KR 2	2006-	7194	80	20060921					
IN	IN 2006DN05581						2007	0831		IN 2	2006-	DN55	81	20060925					
														20060928					
					A1 20070809					US 2006-594710									
PRIORIT	Y APP	LN.	INFO	. :							2004-								
									WO 2	2005-	JP68	06		W 2	0050	331			
OTHER S	OURCE	(S):		MAR	PAT	143:	3870:	27											

[wherein Rl = H, alkyl, (un)substituted hydrocarbyl, or heterocyclyl, R2 = electron withdrawing group; R3 = alkyl, (un)substituted hydrocarbyl, or heterocyclyl; n = 0 or 2]. For example, 5-hydroxy-1-methyl-3- (trifluoromethyl)pyrazole (preparation given) was reacted with 35% formalin in H2O in the presence of NaOH, followed by the addition of NaSMe to give II (72.7%). This process enables the 5-hydroxy-4-thiomethylpyrazole compds. to be easily produced in high yield under mild conditions through a single step without the necessity of using any special apparatus, expensive catalyst, transition metal, etc. It is friendly to the environment because it generates substantially no harmful wastes derived from a catalyst, etc. $^{19}86.71-^{19}.^{19}6.850-^{19}.^{19}.^{19}.^{19}.^{19}$

IT 51986-17-5P 63650-60-2P 96145-98-1P

RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (intermediate; preparation of 5-hydroxy-4-thiomethylpyrazole derivs.)

RN 51986-17-5 CAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 5-hydroxy-1-methyl-, ethyl ester (CA INDEX NAME)

RN 63650-60-2 CAPLUS

CN 1H-Pyrazole-3-carbonitrile, 5-hydroxy-1-phenyl- (CA INDEX NAME)

RN 96145-98-1 CAPLUS

CN 1H-Pyrazol-5-ol, 1-phenyl-3-(trifluoromethyl)- (CA INDEX NAME)

RN 122431-37-2 CAPLUS

CN 1H-Pyrazol-5-ol, 1-methyl-3-(trifluoromethyl)- (CA INDEX NAME)

IT 447402-29-1P 866496-13-1P 866496-14-2P 866496-15-3P 866496-16-4P 866496-17-5P 866496-20-0P 866496-21-1P RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation) (preparation of 5-hydroxy-4-thiomethylpyrazole derivs.)
RN 447402-29-1 CAPLUS
NH-Pyrazol-5-01, 4-[[(4,5-dihydro-5,5-dimethyl-3-isoxazolyl)thio]methyl]-1-

methyl-3-(trifluoromethyl)- (CA INDEX NAME)

RN 866496-13-1 CAPLUS
CN 1H-Pyrazol-5-ol, 1-methyl-4-[(methylthio)methyl]-3-(trifluoromethyl)- (CA INDEX NAME)

Me

RN 866496-14-2 CAPLUS
CN 1H-Pyrazol-5-ol, 1-methyl-4-[(phenylthio)methyl]-3-(trifluoromethyl)- (CA
INDEX NAME)

RN 866496-15-3 CAPLUS

CN 1H-Pyrazol-5-ol, 1-methyl-4-[[(4-methylphenyl)sulfonyl]methyl]-3-(trifluoromethyl)- (CA INDEX NAME)

RN 866496-16-4 CAPLUS

CN 1H-Pyrazol-5-ol, 4-[[(4,5-dihydro-5,5-dimethyl-3-isoxazolyl)thio]methyl]-1-phenyl-3-(trifluoromethyl)- (CA INDEX NAME)

RN 866496-17-5 CAPLUS

CN 1H-Pyrazo1-5-o1, 1-pheny1-4-[(pheny1sulfony1)methy1]-3-(trifluoromethy1)-(CA INDEX NAME)

RN 866496-20-0 CAPLUS
CN IH-Pyrazole-3-carbonitrile, 5-hydroxy-4-[[(4-methylphenyl)sulfonyl]methyl]l-phenyl- (CA INDEX NAME)

RN 866496-21-1 CAPLUS
CN 1H-Pyrazole-3-carboxylic acid, 5-hydroxy-4-[[(4methylphenyl)sulfonyl]methyl]-1-phenyl- (CA INDEX NAME)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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